REMARKS

The present Office Action addresses claims 1-35, however claims 34-35 are withdrawn from consideration. Remaining claims 1-33 stand rejected.

Amendments to the Claims

Applicant amends independent claims 1, 22, and 29 to recite that the catheter's second lumen contains an "incompressible fluid." Support for this amendment can be found throughout the specification, for example in paragraph 0026. Applicant amends dependent claims 26 and 32 to clarify the claim language in light of the amendment to independent claims 22 and 29. No new matter is added.

Applicant cancels claims 33-34, as these claims are drawn to a non-elected invention. Applicant reserves the right to pursue these claims in a divisional application.

Restriction Requirement

Applicant confirms the election of the Group I claims (claims 1-33).

Rejections Pursuant to 35 U.S.C. §102

Claims 1-5, 9-10, 21-23, and 28-30 are rejected pursuant to 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,573,007 of Bobo, Sr. ("Bobo"). In particular, the Examiner relies on Figures 6b, 4a, and 4b to disclose a fluid-filled pressure monitoring catheter as claimed. Applicant respectfully disagrees.

As explained above, independent claims 1, 22, and 29 are amended to recite a second lumen containing an *incompressible fluid*. Bobo does not teach or even suggest a second lumen containing an *incompressible fluid*, i.e., a liquid. To the contrary, Bobo teaches "a gas-column pressure measuring catheter . . . The catheter comprises an elongate flexible catheter body having a gas filled lumen . . . ." Col. 2, lines 56-62. Since a gas is compressible, Bobo does not teach a lumen containing an incompressible fluid, as required by independent claims 1, 22, and 29. To the contrary, Bob distinguishes over and teaches against using a liquid, i.e., an incompressible fluid. *See* Col. 1, lines 41-46 and 64-67, and Col. 2, lines 1-7 and 10-19. Accordingly, claims 1, 22, and 29 distinguish

over Bobo and represent allowable subject matter. Claims 2-5, 9-10, 21, 23, 28, and 30 are allowable at least because they depend from allowable claims 1, 22, and 29.

Rejections Pursuant to 35 U.S.C. §103

Claims 6 and 24 are rejected pursuant to 35 U.S.C. 103(a) as being obvious over Bobo. Claims 6 and 24 depend from claims 1 and 22, thus for the same reasons discussed above, claims 6 and 24 distinguish over Bobo and represent allowable subject matter.

Claims 7, 25, and 31 are rejected pursuant to 35 U.S.C. 103(a) as being obvious over Bobo in view of U.S. Patent No. 5,899,937 of Goldstein et al ("Goldstein"). The Examiner relies on Goldstein to disclose compliance of a flexible membrane. As indicated above, Bobo fails to teach or even suggest a second lumen containing an incompressible fluid, and Goldstein does not remedy this deficiency of Bobo. Accordingly, claims 7, 25, and 31 distinguish over Bobo and Goldstein and represent allowable subject matter.

Claim 8 is rejected pursuant to 35 U.S.C. 103(a) as being obvious over Bobo in view of U.S. Patent No. 5,174,290 of Fiddian-Green. The Examiner relies on Fiddian-Green to teach the material composition of the claimed flexible membrane. As explained above, Bobo fails to teach or even suggest a second lumen containing an incompressible fluid, and Fiddian-Green does not remedy this deficiency of Bobo. Accordingly, claim 8 distinguishes over Bobo and Fiddian-Green and represents allowable subject matter.

Claims 11-13, 16-20, 26-27, 32 and 33 are rejected pursuant to 35 U.S.C. 103(a) as being obvious over Bobo in view of U.S. Patent No. 4,846,191 of Brockway et. al. ("Brockway"). Claim 14 is rejected pursuant to 35 U.S.C. 103(a) as being unpatentable over Bobo in view of U.S. Patent No. 4,638,656 of Sgourakes. As explained above, Bobo fails to teach or even suggest a second lumen containing an incompressible fluid, i.e. a liquid. Brockway and Sgourakes teach the use of a liquid for measuring pressure, however it would not have been obvious for a person having ordinary skill in the art to modify Bobo to use a liquid instead of a gas, as taught by Brockway or Sgourakes. To the contrary, Bobo teaches away from using liquid. Bobo explains that when "using liquid filled catheters, it is necessary to maintain sterility of the liquid-filled catheter, the pressure transmitting liquid and all of the portions of the pressure transducer which come into contact with the pressure

transmitting liquid so as to avoid the introduction of pathogenic organisms into the body." Col. 1, lines 41-46. Bobo goes on to explain that liquid can cause inaccuracies in the pressure readings, stating:

> during set up of a liquid-filled pressure monitoring catheter of the prior art, it is typically necessary to prime the catheter with a sterile liquid and to carefully remove any air bubbles which form within the catheter or transducer, as the presence of such air bubbles may adversely affect the responsiveness of the transducer. Thereafter, while the catheter remains inserted, any inadvertent introduction of air bubbles during flushing or manipulation of the transducer/catheter may result in damping of dynamic response of the system. *Such damping may result in inaccuracy of the monitored pressure* . . . .

Col. 1, lines 64 to Col. 2, line 7 (emphasis added). Finally, Bobo explains a further reason that liquid can cause errors in pressure readings, stating:

> when using the liquid filled pressure monitoring catheters of the prior art, it is typically necessary to make certain that the pressure transducer is on a level plane with the pressure-receiving aperture(s) of the catheter to avoid inducement of hydrostatic error in the monitored pressure. After the transducer has been leveled with the catheter, any movement or adjustment of the positioning of the patient will result in a hydrostatic error in the pressure reading obtained, unless the pressure transducer is correspondingly relieved.

Col. 2, lines 10-19. Thus, Bobo overcomes these deficiencies by providing a pressure sensor that uses a gas-filled lumen. Based on these specific teachings of Bobo, no person having ordinary skill in the art would modify Bobo to use a liquid for measuring pressure, as taught by Brockway and Sgourakes, and therefore claims 11-13, 14, 16-20, 26-27, 32, and 33 represent allowable subject matter.

Claim 15 is rejected pursuant to 35 U.S.C. 103(a) as being obvious over Bobo in view of U.S. Patent No. 5,951,497 of Wallace et al. ("Wallace"). The Examiner relies on Wallace to a second lumen having a diameter smaller than a diameter of a first lumen. As previously discussed, Bobo fails to teach or even suggest a second lumen containing an incompressible fluid, and therefore Wallace does not remedy this deficiency of Bobo. Accordingly, claim 15 distinguishes over Bobo and Wallace and represents allowable subject matter.

Conclusion

In view of the amendments and remarks above, Applicant submits that all pending claims are

in condition for allowance and allowance thereof is respectfully requested. Applicant encourages the Examiner to telephone the undersigned in the event that such communication might expedite prosecution of this matter.

Respectfully submitted,

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